

IN THE CLAIMS

Please cancel claims 1 through 15 as indicated below. Please add new claims 16 through 32 as set forth below:

Claims 1 through 15: (Cancelled)

16. (New) A disintegrator roll housing of a disintegrator apparatus of an open-end spinning apparatus, said disintegrator roll housing comprising:

side walls forming two sides of said disintegrator housing;
a circumferential wall disposed between said side walls, said circumferential wall forming at least one side of a feed opening for the feeding of at least one fiber band and forming an exit opening through which fibers from said fiber band are removed from said disintegrator roll housing; and

an insert positioned between said sidewalls and after said feed opening in a direction of rotation of a disintegrating roll disposed within said disintegrating roll housing, said insert acting as a portion of said circumferential wall and at least partially forming a contaminant separation opening through which contaminants pass that are separated during disintegration of said fiber band.

17. (New) A disintegrator roll housing as in claim 16, wherein said circumferential wall includes an abutment positioned after said contaminant separation opening, said insert resting against said abutment.

18. (New) A disintegrator roll housing as in claim 16, wherein at least one of said circumferential wall or said insert comprise lateral limitations on lateral sides of said contaminant separation opening.

19. (New) A disintegrator roll housing as in claim 18, wherein said circumferential wall includes one lateral limitation and said insert includes an opposite lateral limitation.

20. (New) An apparatus for use in a disintegrator roll housing of a disintegrator apparatus of an open-end spinning apparatus, said apparatus comprising an insert for use as a portion of a circumferential wall of said disintegrator roll housing, said insert having at least one projection that at least partially forms a contaminant separation opening through which contaminants pass that are separated during disintegration of a fiber band.

21. (New) An apparatus as in claim 20, wherein said insert comprises two projections disposed parallel to each other in a fork-shape.

22. (New) An apparatus as in claim 20, wherein said insert form restricting borders said contaminant separation opening on at least two sides.

23. (New) An apparatus as in claim 22, wherein said said restricting borders on said inserts include rounded edges on said sides of said contaminant separation opening.

24. (New) An apparatus as in claim 20, wherein said insert is exchangeable in said disintegrator roll housing.

25. (New) An apparatus as in claim 20, wherein said insert includes at least one fastener.

26. (New) An apparatus as in claim 20, wherein said projection includes a contact surface that is abuts against said circumferential wall following said contaminant separation opening.

27. (New) An apparatus as in claim 27, wherein said insert defines all sides of said contaminant separation opening.

28. (New) An apparatus as in claim 27, wherein said insert includes a contact surface that is abuts against said circumferential wall following said contaminant separation opening.

29. (New) An apparatus as in claim 27, wherein said insert extends past said contaminant separation opening so that said insert acts as a portion of said circumferential wall following said contaminant separation opening.

30. (New) An apparatus as in claim 27, wherein said insert includes a contaminant separation opening wall that follows said contaminant separation opening in a direction of travel of said fibers in said disintegrator roll housing.

31. (New) An apparatus as in claim 20, wherein said insert includes a fiber band support for supporting said fiber band that is being fed into a feed opening in a disintegrator roll housing when said open-end spinning apparatus is in operation.

32. (New) A procedure for renovating an open-end spinning apparatus having a disintegrating apparatus with a disintegrator roll housing, said procedure comprising the steps of:

removing a segment of a circumferential wall of the disintegrator roll housing located after a feed opening in a direction of rotation of a disintegrator roll disposed within the disintegrator roll housing, the segment including at least a portion of the circumferential wall defining a contaminant separation opening; and

replacing the segment with a replaceable insert that acts as the circumferential wall and redefines the contaminant separation opening.

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Spinning Apparatus, Insert for a Disintegrator roll housing and
a Procedure for the Modernization of Spinning Apparatuses*

Claims

Claimed is:

1. A disintegrator roll housing (1) of a disintegrator apparatus of an open-end spinning apparatus with a feed opening (2) for the addition of fiber bands, with an exit opening (3) for the removal of fibers from the said disintegrator roll housing (1) and having a contaminant separation opening (4) in the circumferential wall (11) of the disintegrator roll housing (1), whereby in the area in the direction of rotation of the disintegrating roll after the feed opening (2) an insert (5) is placed, which at least partially forms the circumferential wall (11) of the disintegrator roll housing (1), therein characterized, in that the insert (5) extends itself up to the area of the contaminant separation opening (4) of the disintegrator roll housing (1) and, when seen in the axial direction, in relation to the disintegrating roll, forms at least partially the circumferential wall (11) of the disintegrator roll housing (1) in the area of the contamination separation opening (4).

2. A disintegrator roll housing in accord with claim 1, therein characterized, in that in the direction of fiber transport, after the contaminant separation opening (4) an abutment (41) for the insert (5) is provided.

3. A disintegrator roll housing in accord with claim 1 or 2, therein characterized, in that the disintegrator roll housing (1) in the area of the contaminant separation opening (4) includes the lateral limitation (12) of the said contaminant separation opening (4), while the opposite lateral limitation (13) contains the insert (5).

4. An insert for a disintegrator roll housing (1) in accord with one or more of the claims 1 to 3, therein characterized, in that the insert (5) possesses at least one projection (51), which forms the circumferential wall (11) of the disintegrator roll housing (1) in the area of the contaminant separation opening (4).

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5. An insert for a disintegrator roll housing (1) in accord with claim 4, therein characterized, in that the insert (5) is of a forked design.
6. An insert in accord with claims 4 and 5, therein characterized, in that the insert (5) forms the restricting borders of the contamination separation opening (4) on at least two sides.
7. An insert for a disintegrator roll housing (1) in accord with one or more of the claims 4 to 6, therein characterized, in that the insert (5) contains the contaminant separation opening.
8. An insert in accord with one or more of the claims 4 to 7, therein characterized, in that the insert (5) has rounded off edges (52) for the improvement of the air flow in the area of the contamination separation opening (4).
9. An insert in accord with one of more of the claims 4 to 8, therein characterized, in that the insert (5) is exchangeably placed on the disintegrator roll housing (1).
10. An insert in accord with one of more of the claims 4 to 9, therein characterized, in that the insert (5) has one or more fastening means (6).
11. An insert in accord with one or more of the claims 4 to 10, therein characterized, in that the insert (5) possesses on its projection (51) one contact surface (53) with which the said insert (5) abuts the circumferential wall (11) of the disintegrator roll housing (1) at a location following the contamination separation opening.
12. An insert in accord with one or more of the claims 4 to 11, therein characterized, in that the insert (5) contains at least a part of the circumferential wall (11) following the contamination separation opening (4).

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13. A insert in accord with claim 12, therein characterized, in that the contamination separation opening wall (42), which follows the contamination separation opening (4) in the fiber transport direction, is integral with the insert (5).
14. An insert in accord with one or more of the claims 4 to 13, therein characterized, in that the insert (5) possesses a fiber band support, for that fiber band which is being fed into the feed opening (2) in the disintegrator roll housing (1).
15. A procedure for the modernization of an open-end spinning apparatus with a disintegrating apparatus, which includes a disintegrator roll housing, whereby the said disintegrator roll housing possesses a fiber feed opening for the feed of a fiber band, an exit opening for the removal of the fibers from the disintegrating roll housing, as well as a contaminant separation opening in the circumferential wall, whereby in the direction of rotation of the disintegrator roll after the band feed opening, a segment is placed, which extends itself to the contaminant separation opening, therein characterized, in that the segment can be removed and subsequently replaced by means of an insert with the features of one or more of the claims 4 to 13.

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Summary

An exchangeable inset (5) is proposed as auxiliary equipment for a housing (1) of a disintegrating apparatus of an open-end spinning apparatus. The said inset (5) is so adaptable, that the disintegrator roll housing (1) can be made to conform to various spinning conditions. In a partial zone, in accord with this proposition, the inset (5) replaces a circumferential wall (11) of the disintegrator roll housing (1), wherein the inset (5) extends itself into to a zone of a contamination separation opening (4) of the said disintegrator roll housing (1). Its extension in the axial direction is so chosen, that it, at least partially, forms a portion of the circumferential wall (11) of the disintegrator (1) in the area of the said contamination separation opening (4).

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Reference Numbers and Corresponding Components

- 01 Disintegrator housing (in general)
- 02 Feed opening for fiber band into disintegrator housing (not numbered in drawing)
- 03 Exit opening of disintegrator housing
- 04 Inlet opening for air for contaminant separation
- 05 Inset, object of invention
- 06 Fastenings, for borings, bolts, pins or the like for insert 5
- 11 Circumferential wall of disintegrator housing
- 12 A first side (border) of contaminant separation opening 4
- 13 A second side (border) of contaminant separation opening 4
- 14 Opening in 18 for insertion of disintegrating roll and its shaft
- 15 Feed shaft for fiber band
- 16 Charging trough for fiber band
- 17 Either of two elastic (springlike) positioning elements for charging trough 16
- 18 Side walls (at end of disintegrator roll)
- 31 Fiber feed conduit to rotor
- 41 Abutment for placement of insert 5
- 42 First limiting wall of opening 4 for air to contaminate separation function
- 43 Second limiting wall of opening 4 for air to contaminate separation function
- 44 Two separate lines showing inside of limiting walls 44 and 43
- 51 Forked projection of insert 5 (Fig. 3) (Can be one or two thereof)
- 52 First and second interior walls of forked projections of insert 5 (Fig. 3)
- 53 Contact surface of insert 5, with which insert 5 strikes abutment 41
- 161 Guide in charging trough (not numbered in drawing)
- 162 Guide in charging trough (not numbered in drawing)
- 431 Same as 43, but shown as a hidden wall in Fig. 2

Definition:

"Good fiber" is fiber which exceeds 10 mm in length. This fiber is to be incorporated in thread or yarn. Shorter fibers are considered "contaminate".